## Types of computer

# Two types of classification

- On the basis of Technology
  - On the basis of Size

#### Types of computers on the basis of Technology

- Analog Computers
- Digital Computers
- Hybrid Computers



## Analog Computers

• Analog Computer is a computing device that works on continuous range of values. The results given by the analog computers will only be approximate since they deal with quantities that vary continuously. It generally deals with physical variables such as voltage, pressure, temperature, speed, etc.

## Digital Computers

- A digital computer operates on digital data such as numbers. It uses binary number system in which there are only two digits 0 and 1. Each one is called a bit. The digital computer is designed using digital circuits in which there are two levels for an input or output signal. These two levels are known as logic 0 and logic 1. Digital Computers can give more accurate and faster results. Based on the purpose, Digital computers can be further classified as:
- General Purpose Computers
- Special Purpose Computers

## Hybrid Computers

• A hybrid computer combines the desirable features of analog and digital computers. It is mostly used for automatic operations of complicated physical processes and machines. Now-a-days analog-to-digital and digital-to-analog converters are used for transforming the data into suitable form for either type of computation. For example, in hospital's ICU, analog devices might measure the patients temperature, blood pressure and other vital signs.

## Types of computers on the basis of size

- Super Computers
- Mainframe Computers
- Mini Computers
- Micro Computers



Micro Computer



minicomputer



Mainframe



Super Computer

#### Super Computers

• When we talk about types of computers, the first type that comes to our mind would be Super computers. They are the best in terms of processing capacity and also the most expensive ones. These computers can process billions of instructions per second. Normally, they will be used for applications which require intensive numerical computations such as stock analysis, weather forecasting .



#### Mainframe Computers

 Mainframe computers can also process data at very high speeds i.e., hundreds of million instructions per second and they are also quite expensive. Normally, they are used in banking, airlines and railways etc. for their applications.



## Mini Computers

 Mini computers are lower to mainframe computers in terms of speed and storage capacity. They are also less expensive than mainframe computers. Some of the features of mainframes will not be available in mini computers. Hence, their performance also will be less than that of mainframe computers.



## **Micro Computers**

Type of Micro Computer

- Desktop Computers
- Laptop Computers
- Handheld Computers(PDAs)

## Desktop Computers

• Today the Desktop computers are the most popular computer systems. These desktop computers are also known as personal computers or simply PCs. They are usually easier to use and more affordable. They are normally intended for individual users for their word processing and other small application requirements.



#### Laptop Computers

• Laptop computers are portable computers. They are lightweight computers with a thin screen. They are also called as notebook computers because of their small size. They can operate on batteries and hence are very popular with travelers. The screen folds down onto the keyboard when not in use.



#### Handheld Computers or Personal Digital Assistants (PDAs)

• Handheld computers or Personal Digital Assistants (PDAs) are pen-based and also batterypowered. They are small and can be carried anywhere. They use a pen like stylus and accept handwritten input directly on the screen. They are not as powerful as desktops or laptops but they are used for scheduling appointments, storing addresses and playing games. They have touch screens which we use with a finger or a stylus.

